Engineering Report

Single Family Residence

1208 Virginia Street

Key West, FL 33040

Prepared By:

Alexander N. Fernandez, P.E.
P.E. # 91452
Atlantic Engineering of the Florida Keys
1208 Virginia Street
Key West, FL 33040
(305) 395-0521

April 6, 2023

ALEXANDER N. FERNANDEZ
LICENSE
N. 91452
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Alexander N Fernandez
Reason: I attest to the accuracy and integrity of this document
Date: 2023.04.10 08:05:20 -04'00'

Background

This report was commissioned by the contractor working at 1208 Virginia Street in order to evaluate the structural integrity of the current structure. The structure in question is a historic single-family residence with an apparent front yard addition. The residence in question is a wood framed ±1329 sf home on a combination of stacked CMU and solid limerock columns.

Procedure

A site visit was conducted on April 6, 2023 where visual observations were noted and photographs taken.

Observations

Foundations:

The original foundations appear to be limerock blocks typical of historic homes in Key West. Many of the blocks appear to be falling apart. Some of them have settled and shifted over time and blocking has been added above to compensate and prevent rim beams from sagging. Supplemental column blocks and wood posts have been added throughout the house to prevent the rotten rim beams from collapsing. These supplemental columns appear to have no footers or tie downs.

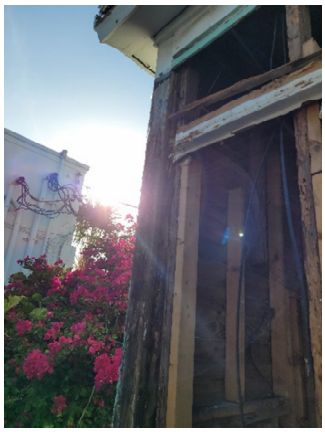
Floor Framing:

Rim beams around the perimeter are completely rotten from both water and termites and have minimal strength remaining and are clearly failing. This failure compromises the walls and roof framing above. It appears that the exterior siding is what is keeping the studs in place. Center beams are in good condition. Floor joists within the original structure have varying levels of termite damage. Regardless of the condition, due to the severe damage of the rim beam, joists have low strength.

Walls:

Many of the interior walls were removed prior to my inspection. In addition to the failing rim beam below, exterior wall studs have varying degrees of termite and water damage. Door and window openings are in poor condition, and damaged siding has not been maintained.



Roof:

Termite damage is apparent on wall bearing members. Limited access prevented thorough inspection of roof rafters. A portion of the roof rafters have no bearing point where there should be a bearing wall or a support beam and is currently being held together by the roof decking this area is extremely hazardous and failure may be imminent.

Conclusion

The foundations, rim beams, and floor joists are inadequate, many of the studs and siding boards are damaged, roof rafters appear to be undersized, and a portion of the roof rafters have no support below. This is a dangerous structure, and it is my opinion that this building should be demolished.